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CENTRAL INTELLIGENCE AGENCY

REPORT

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INFORMATION FROM  
FOREIGN DOCUMENTS OR RADIO BROADCASTS

CD NO.

COUNTRY Yugoslavia

SUBJECT Economic - Pharmaceutical manufacture  
Sociological - Medical developments

HOW PUBLISHED Yugoslav daily newspapers

WHERE PUBLISHED Belgrade

DATE PUBLISHED Mar 1949

LANGUAGE Serbo-Croatian

DATE OF  
INFORMATION 1949

DATE DIST. 20 Apr 1949

NO. OF PAGES 3

SUPPLEMENT TO  
REPORT NO.

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SOURCE Borba, No 59, 1949.

PRODUCTION OF DRUGS AND MEDICAL  
EQUIPMENT IN YUGOSLAVIA

NEW DRUGS IN PRODUCTION -- Borba, No 59, 10 Mar 49

The "Pliva" medicine factory, which fulfilled its 1948 plan 49 days ahead of schedule, is one of the best pharmaceutical plants in Yugoslavia. Parallel with remodelling of its old buildings and construction of new ones, this factory has been modernizing its production. The Tvoronica Hidrauličnih Strojova (Factory for Hydraulic Machinery) has made equipment for producing nicotine at "Pliva," and the "Jedinstvo" factory has completed equipment for manufacturing other drugs.

The installation of new equipment and the training of personnel raised 1948 production over 500 percent as compared with 1945, and production in 1949 will be 11 times greater than in 1945.

During 1947 and 1948, this factory produced 14 new medicinal preparations which had never been made in Yugoslavia before. It is now producing medicines for malaria, rheumatism, syphilis, nerve diseases, gastric ulcers, and circulatory diseases. One of the greatest successes of the factory is the production of crystalline insulin, as the result of research over the last 2 years by an engineer employed at "Pliva."

The factory has succeeded in substituting certain products now made regularly by Yugoslav industry for foreign raw materials. In place of benzol the factory now uses benzine, and in place of chloroform Yugoslav chloroethane is used.

The section for producing reagents has produced 45 different products for analytical chemistry for the use of institutes, laboratories, and industry.

A worker at the factory has developed an improved method of processing animal glands which reduces waste 50 percent.

NEW HORMONE PREPARATIONS AND SERUMS -- Borba, No 59, 10 Mar 49

The "Prolek" medicine factory now produces medicines, vaccines, and four kinds of serums, including antidiphtheria and antitetanus serums. It also

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produces multivalent ? vaccines for inoculation against typhus and diphtheria.

The medicine section produces disinfectants and insulin. In January 1948 it began production of hormones and organotherapeutic preparations for use in treating endocrine disorders. These preparations, which had never been produced in Yugoslavia before, are now the principal products of the medicine section. At first it was difficult to obtain enough animal glands, because slaughterhouse workers were not used to saving them and because of lack of refrigeration in slaughterhouses. This year a refrigerator car has been obtained, and contracts have been signed under which slaughterhouses will deliver 80 percent of the glands of animals slaughtered.

Twenty-seven different medicines were manufactured by the medicine section in 1948. Eight of the 15 hormone and organotherapeutic preparations which, under the Five-Year Plan, are to be manufactured by the end of 1951 are already being made at "Prolek."

Last year, 20 new medicines, which always had been imported previously, were made at this factory. Among the most important medicines made here, besides insulin, are heparon (a liver extract) for anemia, and cortin for endocrine disorders.

#### MEDICINE FACTORY EXPANDING -- Borba, No 59, 10 Mar 49

Ljubljana -- The "Lek" (Medicine) factory produced ten times more in 1948 than before the war. By 1946 its production was twice the prewar figure.

A new section has been added to the plant at Ljubljana, and another was begun in 1948 at Menges, where organic salts and bismuth salts will be prepared. Several new machines for special preparations have been added. The section at Erastnik is the only shop of the prewar plant still in operation.

Products of the factory include "Baldin," for use in disorders of the nervous system; "Sekalin," for use in obstetrics, and "Ferosov," an iron preparation for the blood. Other countries are interested in this factory's extract from the root of the eagle fern, which is used for the treatment of tapeworm. Medicines for cardiopathy and hyperacidity of the stomach, ether, and other products also are manufactured here.

Most of the preparations made at "Lek" are produced from Yugoslav raw materials. Only a few chemicals are imported.

#### RESEARCH ON NEW MEDICINES -- Borba, No 59, 10 Mar 49

Zagreb -- "Picnir," the factory for pharmaceutical and dietetic products, is now producing five times more than before the war. Its 1948 plan, which was 100 percent greater than that of 1947, was fulfilled 14 days ahead of schedule.

The factory supplies all Yugoslav republics with products for supplementary feeding of infants. Research is now in progress toward early production of carob meal, from which an excellent medicine for infantile intestinal disorders will be obtained, and toward preparation of extracts from brewers' yeast.

As soon as the factory was taken over by the state, new equipment was installed. The building of a new boiler room alone trebled the factory's capacity. All the old, worn-out machinery was rebuilt and is now in operation.

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MORE DENTAL PREPARATIONS -- Borba, No 59, 10 Mar 49

The "Galenika" factory for pharmaceutical products produced 2½ times more in 1948 than in 1945 and in 1949 will produce six times more. The factory produced 221 dental preparations and products in 1948 as compared with 193 in 1947. In 1948, "Galenika" manufactured injection preparations for varicose veins, using Yugoslav materials except for fish oil. A medicine for intestinal infection is prepared by an apparatus made in Yugoslavia.

Dental products made at "Galenika" include preparations for the treatment and repair of teeth, medicines, plastics and thermoplastics, wax, temporary cement, and other products, many of which were never made in Yugoslavia before. Most raw materials used were produced in Yugoslavia.

Research is now in progress on 35 items for use in dentistry, and another 41 are planned for 1949.

MEDICAL EQUIPMENT MADE IN YUGOSLAVIA -- Borba, No 59, 10 Mar 49

Production is already under way in the unfinished building of the "Sutjeska" factory for medical equipment. This is now one of the largest factories of its kind in Yugoslavia. Production in 1948 was nine times greater than in 1946 and in 1949 will be 12 times greater. Of the 600 most important standard instruments, the factory will produce 370 during 1949.

All apparatus in the factory is new. Technical processes will have to be worked out for each product, as there is no similar factory in Yugoslavia to offer the benefit of experience.

During 1949, a complicated apparatus to control heart action during narcosis will be serially produced. The prototype was developed in 1948 in the Construction Bureau of the General Administration for Medical Production. An autoclave heated by wood, to be used for sterilizing bandages in areas where there is no electricity, is being developed by Yugoslav technicians. Work also is in progress on instruments for chest and brain operations, on driers which are capable of reaching a temperature of 250 degrees centigrade, and on an apparatus for distilling water. Serial production of the "Fantostat," an apparatus for electric lighting and galvanization, the prototype of which was made in 1948, is now in progress. A number of instruments for general medicine and surgery are also being made.

During 1949, the prototype of a universal operating table will be developed and serial production of apparatus for sterilizing bandages will be started.

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